

**Flood Control Project Maintenance
Levee Inspections**

Fall 2013 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

ST0009	Overall LMA Rating	Total LMA Miles						
Sutter Maintenance Yard Tisdale Bypass	A	8.93						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Encroachments					3.28			
Erosion / Bank Caving	0.03		0.03	0.34%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.07			
<i>LMA Totals:</i>	0.03	0.00	0.03	0.34%	3.35	0.00	0.00	0.00

Unit No. 01 Tisdale Bypass LB	Overall Unit Rating	Total Unit Miles						
ST0009	A	4.50						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Encroachments					1.92			
<i>Supplemental</i>								
DWR UCIP Field Study					0.01			
<i>Unit Totals:</i>	0.00	0.00	0.00	0.00%	1.93	0.00	0.00	0.00

Unit No. 02 Tisdale Bypass RB	Overall Unit Rating	Total Unit Miles						
ST0009	A	4.43						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Encroachments					1.36			
Erosion / Bank Caving	0.03		0.03	0.68%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.06			
<i>Unit Totals:</i>	0.03	0.00	0.03	0.68%	1.42	0.00	0.00	0.00

**Flood Control Project Maintenance
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LMA District Cover Sheet
Fall 2013 Levee Inspection Results

Sutter Maintenance Yard Tisdale Bypass

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			A	

** Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

*
SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2013 Levee Inspection Results

Sutter Maintenance Yard Tisdale Bypass

Waterway			Bank	Unit Miles
Unit No. 01 Tisdale Bypass			Left	4.50
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			A	
Date of Inspection	03/05/2013 - 03/05/2013		10/08/2013 - 10/08/2013	
DWR Inspector	Bob Duffey		Bob Duffey	
Accompanied By	Steve Beckley Sutter Maintenance Yard		Steve Beckley Sutter Maintenance Yard	

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Sutter Maintenance Yard Tisdale Bypass

Waterway				Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass				Left	4.50	10/08/2013 10/08/2013	Bob Duffey

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
1			Earthen Levee	Operations & Maintenance Manuals	LS	A Ma		°	°	2
DWR ID: DWR_ST0009_01_s_2013_2										
2			Earthen Levee	Emergency Supplies & Equipment	LS	A Ma		°	°	4
DWR ID: DWR_ST0009_01_s_2013_4										
3			Earthen Levee	Flood Preparedness & Training	LS	A Ma		°	°	5
DWR ID: DWR_ST0009_01_s_2013_5										
4	2.18	4.10	Earthen Levee	Encroachments	LS	M En	PO : Pole	39.028173 ° -121.781475 °	39.028012 ° -121.745665 °	3 Y
DWR ID: DWR_ST0009_01_s_2012_3										
5	3.64	3.64	Supplemental	DWR UCIP Field Study	LS	M En	Inspector Comments: FS_ID:13493 EP_NO: 14740 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 5/20/2013 Carsonite marker on WS shoulder missing and should be replaced. FIELD_STRUCT_DESC: 4-inch pipe through levee and under channel 2.5 feet below crown. Carsonite signs on both LS and WS shoulder. Gas Wells 200-feet off of LS toe. (Permit No. 14740 - Nahama and Weagant Energy Co.) Drawings available. FS Date: 5/20/2013 11:57:18 AM	39.027911 ° -121.754224 °	39.027911 ° -121.754224 °	1 Y
DWR ID: DWR_ST0009_01_f_2013_1										
6	3.66	3.66	Earthen Levee	Vegetation	LS	A Ma	V1 : Control annual grass and weeds on the levee slopes and easements. Inspector Comments: Sutter Yard has burned and dragged both slopes.	39.027898 ° -121.753837 °	39.027898 ° -121.753837 °	6 Y
DWR ID: DWR_ST0009_01_f_2013_6										

*** Location**

LS : Land Side
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**** Rating**

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A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Tisdale Bypass	Left	4.50	10/08/2013 10/08/2013	Bob Duffey

Levee Mile Report Line	4
Start Levee Mile	2.18
End Levee Mile	4.10
Location	Land Side
Category	Earthen Levee
Item	Encroachments

View of the PG&E poles along the landside crown of the levee.

rduffey_f_20130919_829.jpg



Levee Mile Report Line	5
Start Levee Mile	3.64
End Levee Mile	3.64
Location	Land Side
Category	Supplemental
Item	DWR UCIP Field Study

Carsonite sign on LS shoulder with view of gas well in background.

UCIP_7318.jpg



Levee Mile Report Line	6
Start Levee Mile	3.66
End Levee Mile	3.66
Location	Land Side
Category	Earthen Levee
Item	Vegetation

View of the burned and dragged slopes of the levee.

rduffey_f_20131015_085.JPG



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**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2013 Levee Inspection Results

Sutter Maintenance Yard Tisdale Bypass

Waterway			Bank	Unit Miles
Unit No. 02 Tisdale Bypass			Right	4.43
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			A	
Date of Inspection	03/05/2013 - 03/05/2013		10/08/2013 - 10/08/2013	
DWR Inspector	Bob Duffey		Bob Duffey	
Accompanied By	Steve Beckley Sutter Maintenance Yard		Steve Beckley Sutter Maintenance Yard	

Summer & Winter Inspections

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Levee Inspection Report By Mile - Fall 2013

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	10/08/2013 10/08/2013	Bob Duffey

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	
1	0.11	0.25	Earthen Levee	Encroachments	LS	M En	DT : Ditch	39.023760 ° -121.818875 °	39.024559 ° -121.816344 °	1 Y
DWR ID: DWR_ST0009_02_s_2012_1										
2	0.52	1.74	Earthen Levee	Encroachments	LS	M En	DT : Ditch	39.025539 ° -121.811540 °	39.025398 ° -121.789006 °	2 Y
DWR ID: DWR_ST0009_02_s_2012_2										
3	1.01	1.01	Earthen Levee	Erosion / Bank Caving	WS	M Ma	E1 : Note and monitor erosion site.	39.025542 ° -121.802468 °	39.025542 ° -121.802468 °	3 Y
DWR ID: DWR_ST0009_02_s_2012_3										
4	1.14	1.14	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:6727 EP_NO: 267 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Burrowing along downstream side of concrete vault on WS Toe. May need to be grouted. FIELD_STRUCT_DESC: 54-inch concrete pipe through levee, 29.5 feet below the crown. Slide gates on both ends. Waterward end gate in 5-foot by 6-foot concrete box. Landward end gate in concrete "U" headwall. Siphon pipe under and across bypass, steel concrete encased. (Permit No. 267 & 290 - Sutter Basin Water Co.) FS Date: 10/17/2012 8:52:00 AM	39.025503 ° -121.800053 °	39.025503 ° -121.800053 °	11 Y
DWR ID: DWR_ST0009_02_f_2013_11										
5	1.14	1.14	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:6726 EP_NO: 267 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Burrowing along downstream side of concrete vault on WS Toe. May need to be grouted. FIELD_STRUCT_DESC: 54-inch concrete pipe through levee, 29.5 feet below the crown. Slide gates on both ends. Waterward end gate in 5-foot by 6-foot concrete box. Landward end gate in concrete "U" headwall. Siphon pipe under and across bypass, steel concrete encased. (App. Nos. 267 & 290 - Sutter Basin Water Co.) FS Date: 10/17/2012 8:52:34 AM	39.025503 ° -121.800053 °	39.025503 ° -121.800053 °	12
DWR ID: DWR_ST0009_02_f_2013_12										
6	1.14	1.14	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:13488 EP_NO: 267 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Burrowing along downstream side of concrete vault on WS Toe. May need to be grouted. 5/20/2013 Same as last inspection. FIELD_STRUCT_DESC: 54-inch concrete pipe through levee, 29.5 feet below the crown. Slide gates on both ends. Waterward end gate in 5-foot by 6-foot concrete box. Landward end gate in concrete "U" headwall. Siphon pipe under and across bypass, steel concrete encased. (Permit No. 267 & 290 - Sutter Basin Water Co.) FS Date: 5/20/2013 11:53:57 AM	39.025503 ° -121.800053 °	39.025503 ° -121.800053 °	13
DWR ID: DWR_ST0009_02_f_2013_13										

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Levee Inspection Report By Mile - Fall 2013

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	10/08/2013 10/08/2013	Bob Duffey

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	
7	1.29	1.29	Earthen Levee	Erosion / Bank Caving	WS	M Ma		39.025478 ° -121.797232 °	39.025478 ° -121.797232 °	4 Y
DWR ID: DWR_ST0009_02_s_2013_4										
8	1.50	1.50	Earthen Levee	Erosion / Bank Caving	WS	M Ma		39.025446 ° -121.793347 °	39.025446 ° -121.793347 °	5 Y
DWR ID: DWR_ST0009_02_s_2013_5										
9	2.53	2.53	Earthen Levee	Animal Control	WS	C Ma	A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.	39.025271 ° -121.774186 °	39.025271 ° -121.774186 °	7
DWR ID: DWR_ST0009_02_f_2012_7										
10	4.21	4.21	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:16283 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Need to identify permit for crossing. FIELD_STRUCT_DESC: Natural gas pipeline markers on LS shoulder and toe and WS shoulder and toe FS Date: 5/20/2013 7:43:43 AM	39.024079 ° -121.743420 °	39.024079 ° -121.743420 °	14
DWR ID: DWR_ST0009_02_f_2013_14										
11	4.21	4.21	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:16284 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Need to identify permit for crossing. FIELD_STRUCT_DESC: Natural gas pipeline markers on LS shoulder and toe and WS shoulder and toe. No photos available. FS Date: 5/20/2013 7:43:00 AM	39.024079 ° -121.743420 °	39.024079 ° -121.743420 °	15
DWR ID: DWR_ST0009_02_f_2013_15										
12	4.21	4.21	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:16732 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Need to identify permit for crossing. FIELD_STRUCT_DESC: Natural gas pipeline markers on LS shoulder and toe and WS shoulder and toe. No photos available. FS Date: 5/20/2013	39.024079 ° -121.743420 °	39.024079 ° -121.743420 °	16
DWR ID: DWR_ST0009_02_f_2013_16										

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	10/08/2013 10/08/2013	Bob Duffey

Levee Mile Report Line	1
Start Levee Mile	0.11
End Levee Mile	0.25
Location	Land Side
Category	Earthen Levee
Item	Encroachments

View of the agricultural ditch and erosion along the landside toe of the levee.

rduffey_f_20130919_830.jpg



Levee Mile Report Line	2
Start Levee Mile	0.52
End Levee Mile	1.74
Location	Land Side
Category	Earthen Levee
Item	Encroachments

View of the ag ditch next to the L/S toe.

rduffey_f_20130919_831.jpg



Levee Mile Report Line	3
Start Levee Mile	1.01
End Levee Mile	1.01
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

View of the erosion along the waterside toe of the levee.

rduffey_f_20130919_832.jpg



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Levee Inspection Report By Mile - Fall 2013

Sutter Maintenance Yard Tisdale Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Tisdale Bypass	Right	4.43	10/08/2013 10/08/2013	Bob Duffey

Levee Mile Report Line	4
Start Levee Mile	1.14
End Levee Mile	1.14
Location	Water Side
Category	Supplemental
Item	DWR UCIP Field Study

Slide gate at concrete outlet on LS toe.

UCIP_2920.jpg



Levee Mile Report Line	7
Start Levee Mile	1.29
End Levee Mile	1.29
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

View of the erosion along the waterside berm.

rduffey_f_20130919_833.JPG



Levee Mile Report Line	8
Start Levee Mile	1.50
End Levee Mile	1.50
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

View of the erosion along the waterside berm

rduffey_f_20130919_834.JPG



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